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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,748	11/09/2001	Kenji Uchida	NEC-5084-US	5987

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MCGINN & GIBB, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER	
NGO, CHUONG D	

ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/986,748	UCHIDA, KENJI	
	Examiner	Art Unit	
	Chuong D Ngo	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 10-18 recite a method for converting floating point data to respective fixed point data. The inputs are numbers, and the outputs are also numbers. Other than steps that merely involve in data computations and manipulations, the claims fail to recite any limitation that would result in a physical transformation, a limitation to practical application, or require a specific computer to implement the claimed method. Accordingly, the claimed method is directed to non-statutory subject matter.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1,2,5,8-11,14,17 and 18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ozawa (JP 08-101919).

As per claims 1,2,5,10,11 and 14, Ozawa discloses in figure 1, a floating-point to fixed-point conversion having a reference data determining means (11) for detecting a maximum value as a reference, an exponent subtractor and shifting means (12), and a bit extracting means (output of 12) as claimed.

As per claims 8 and 17, since the claims is claiming a circuit and method for generating a fix point data, the recitation in claims 8 and 17 that the fixed point data is inputted to a Viterbi decoder is a mere intended field of use that does not make the claimed circuit and method distinct from that of Ozawa.

As per claims 9 and 18, the recitation "high decoding rate" is only a relative term. Any decoding rate can be considered high or low with respect to some other decoding rates. The fixed point data extracted from shifting means can be seen as having a high decoding rate as claimed.

6. Claims 3,4,12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa (JP 08-101919).

Ozawa does not disclose the detecting a minimum or an average value for the reference as claimed. However, it is clearly equivalent to choose the minimum or the average instead of the maximum for the reference in the conversion of Ozawa. A person of ordinary skill in the art would have found it an obvious modification from the teaching of Ozawa to detect a minimum or an average instead of the maximum for the reference as claimed.

7. Claims 6,7,15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa (JP 08-101919) as applied to claims 1 and 10 above, and further in view of Blackham et al (5,619,198).

It is noted that Ozawa does not discloses a correction of an overflow output by representing the output by a maximum value. However, Blackham et al discloses in figure 1, a correction means (30) for correcting an overflow output from a floating-point/fixed-point conversion by representing the overflow output by a maximum value as claimed. It would have been obvious to a person of ordinary skill in the art to provides Ozawa with an overflow correction means as taught by Blackham et al. in order to reduce errors caused by overflow.

8. Claims 1,2,5,8-11,14,17 and 18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yoshizawa et al (5,359,548).

As per claims 1,2,5,10,11 and 14,Yoshizawa et al discloses in figure 13, a floating-point to fixed-point conversion having a reference data determining means (20-22)) for detecting a maximum value as a reference, an exponent subtractor means (23), shifting means (24), and a bit extracting means (output of 24) as claimed.

As per claims 8 and 17, since the claims is claiming a circuit and method for generating a fix point data, the recitation in claims 8 and 17 that the fixed point data is inputted to a Viterbi decoder is a mere intended field of use that does not make the claimed circuit and method distinct from that of Yoshizawa et al.

As per claims 9 and 18, the recitation "high decoding rate" is only a relative term. Any decoding rate can be considered high or low with respect to some other decoding rates. The fixed-point data extracted from shifting means can be seen as having a high decoding rate as claimed.

9. Claims 3,4,12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizawa et al (5,359,548).

Yoshizawa et al does not disclose the detecting a minimum or an average value for the reference as claimed. However, it is clearly equivalent to choose the minimum or the average instead of the maximum for the reference in the conversion of Yoshizawa et al. A person of ordinary skill in the art would have found it an obvious modification from the teaching of Yoshizawa et al to detect a minimum or an average instead of the maximum for the reference as claimed.

10. Claims 6,7,15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshizawa et al (5,359,548) as applied to claims 1 and 10 above, and further in view of Blackham et al (5,619,198).

It is noted that Yoshizawa et al does not discloses a correction of an overflow output by representing the output by a maximum value. However, Blackham et al discloses in figure 1, a correction means (30) for correcting an overflow output from a floating-point/fixed-point conversion by representing the overflow output by a maximum value as claimed. It would have been obvious to a person of ordinary skill in the art to provides Yoshizawa et al with an overflow correction means as taught by Blackham et al. in order to reduce errors caused by overflow.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D Ngo whose telephone number is (703) 305-9764. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 309-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chuong D Ngo
Primary Examiner
Art Unit 2124

09/16/2004